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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,357

09/23/2005

Tsunehisa Namiki

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EXAMINER

VAN, QUANG T

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

09/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,357	Applicant(s) NAMIKI ET AL.	
	Examiner Quang T. Van	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-16 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-16 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/28/09</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 6-8, 11-16 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (US 5,616,369), previously cited, in view of Fukaya et al (US 4,700,080) new cited. Williams discloses a process for barrier coating of plastic objects comprising executing a power glow discharge (col. 10, lines 3-4) so as to carry out a reaction chiefly between organometals contained in the treatment gas and thereby form a first CVD film (col. 7, lines 1-5) on the surface of the substrate, and executing a power glow discharge (col. 10, lines 12-14) so as to react the organometals with the oxidizing gas and thereby form a second CVD film on the first CVD film (col. 7, lines 11-12). Williams also discloses the glow discharges of the first and second CVD films in the same plasma reaction chamber (col. 7, lines 1-12), the same organometals is employed for both CVD layers and executed the same frequency for glow discharges of the first and second CVD films. However, Williams does not disclose the steps of executing a low power glow discharge forming the first CVD film and executing a high power glow discharge forming the second CVD film. Fukaya discloses the steps of executing a low power glow discharge to form a layer film and executing a high power glow discharge to form another layer film (col. 17, lines 18-27). It would have been

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obvious to one ordinary skill in the art at the time the invention was made to utilize in Williams the steps of executing a low power glow discharge and executing a high power glow discharge as taught by Fukaya in order to provide the proper heat for each coating layers. With regard to claims 14-16, it would have been obvious to one ordinary skill in the art at the time the invention was made to have an output waveform of the microwaves in the low power glow discharge have a oscillation time of microwave in one period is not longer than 1.5 milliseconds, and an output waveform of the microwaves in the high power glow discharge have a oscillation time of microwave in one period is not shorter than 2 milliseconds in order to have an intermittent oscillated, and discovering the optimum or workable ranges of times, is not of innovation but involves only routine skill in the art.

3. Claims 3-5, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (US 5,616,369) previously cited, in view of Fukaya et al (US 4,700,080) new cited and further in view of Lindsay et al (US 4,395,313) previously cited.

Williams/Fukaya disclose substantially all features of the claimed invention except said low power is in a range of 20-90 watts and said high power is in a range of not lower than 100 watts. Lindsay discloses a low power is in a range of 20-90 watts and a high power is in a range of not lower than 100 watts (col. 3, lines 27-31). It would have been obvious to one ordinary skill in the art at the time the invention was made to utilize in Williams/Fukaya a low power is in a range of 20-90 watts and a high power is in a range of not lower than 100 watts as taught by Lindsay in order to proper heat for each coating layers. With regard to claim 9, the term "a carbon concentration of not smaller than

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15% on the basis of three elements of O, C and Si". It would have been obvious to one ordinary skill in the art at the time the invention was made to have a carbon concentration of not smaller than 15% on the basis of three elements of O, C and Si. Doing so would provide an organic layer being rich in carbon, and selecting a carbon concentration of not smaller than 15%, is not of innovation but involves only routine skill in the art.

Response to Amendment

4. Applicant's arguments with respect to claims 2-16 and 27 have been considered but are moot in view of the new ground(s) of rejection.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T. Van whose telephone number is 571-272-4789. The examiner can normally be reached on 8:00Am 5:00Pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quang T Van/
Primary Examiner, Art Unit 3742
September 24, 2009

Quang T Van
Primary Examiner
Art Unit 3742